

CLAIMS:

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1. A lithographic projection apparatus, comprising:
a radiation system for supplying a projection beam of radiation;
a mask table provided with a mask holder for holding a mask;
a substrate table provided with a substrate holder for holding a substrate;
5 a projection system for imaging an irradiated portion of the mask onto a target portion of the substrate; and
a preparatory station comprising an intermediate table on which a substrate can be positioned before transfer to the substrate table;
characterized in that the intermediate table comprises a major surface provided
10 with a plurality of apertures, and gas bearing means for generating a gas bearing between said major surface and a substrate located thereon.
2. An apparatus according to claim 1, characterized in that said preparatory station comprises gas ionizing means for ionizing said gas.
3. An apparatus according to claim 1 or 2, characterized in that said intermediate
15 table comprises first control means for regulating the temperature of that table.
4. An apparatus according to claim 1, 2 or 3, characterized in that said gas bearing has a thickness less than 150 μm .
5. An apparatus according to claim 1-4, characterized in that said preparatory station comprises second control means for regulating the temperature of said gas.
- 20 6. An apparatus according to claim 3 or 5, characterized in that said first and/or said second control means maintain the intermediate table and the gas at a temperature substantially equal to the temperature of the substrate table.
7. An apparatus according to claim 1-6, characterized in that said apparatus further comprises:
25 detecting means for detecting a first position of said substrate on said intermediate table;
calculating means for calculating a required displacement between said first position and a desired position of the substrate on the intermediate table; and

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cont

~~moving means for moving said substrate from said first position to said desired position.~~

8. An apparatus according to claim 7, characterized in that said detecting means are constructed and arranged to detect an edge of the substrate.

5 9. An apparatus according to claim 7 or 8, characterized in that said detecting means are constructed and arranged to detect a mark on the substrate.

10. A device manufacturing method comprising the steps of:

- 10 (a) providing a mask table with a mask which contains a pattern,
 (b) providing a substrate table with a substrate which is at least partially covered by a layer of radiation-sensitive material, and
 (c) using a projection beam of radiation to project an irradiated part of the mask onto a target area of the layer of radiation-sensitive material; characterized in that prior to step (b) the following steps are carried out:

15 providing the substrate to an intermediate table comprising a major surface provided with a plurality of apertures, and maintaining the substrate for a given time interval upon a gas bearing generated between the said major surface and the substrate.

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11. A device manufactured in accordance with a method as claimed in claim 10.

12. A substrate preparing device comprising an intermediate table on which a substrate can be positioned before transfer to a substrate table in a lithographic projection apparatus;

20 characterized in that the intermediate table comprises a major surface provided with a plurality of apertures, and gas bearing means for generating a gas bearing between said major surface and a substrate located thereon.

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